

Appln No. 09/844,898

Amdt date February 21, 2006

Reply to Office action of December 14, 2005

REMARKS/ARGUMENTS

Claims 1-13, 16-46 and 48 are now in the application, of which Claims 1, 7, 12, 30 and 42 are independent. Claims 1, 7, 12, 13, 30 and 31 are currently amended. Claims 14, 15 and 47 have been cancelled without prejudice. Claim 48 has been added. Applicants thank the Examiner for the thorough examination of the application and for indicating allowance of Claims 42-46. Applicants respectfully request reconsideration and allowance of Claims 1-13 and 16-41 in addition to the allowed Claims 42-46. Further, Applicants request consideration on the merit and allowance of the newly added Claim 48.

I. Rejection of Claims 1, 6-7, 12-21, 26-37, 41 and 47 under 35 U.S.C. § 102(e)

The Examiner has rejected Claims 1, 6-7, 12-21, 26-37, 41 and 47 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,101,255 to Harrison et al. ("Harrison"). Since Claims 14, 15 and 47 are canceled herein, their rejection is now moot.

In rejecting Claims 1 and 7, the Examiner contends that "Harrison discloses 'A system for distributing cryptographic keys for encrypting digital data, the system comprising: a first memory for storing a cryptographic key,' 'a digital data input medium for receiving digital data to be encrypted,' 'a second memory,' 'a multiplexer . . . ,' and 'a selector . . . ,' and cites FIG. 1 and Col. 4, line 7 through Col. 5, line 41 of Harrison.

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To anticipate a claim, however, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Therefore, all claim elements, and their limitations, must be found in the prior art reference to maintain a rejection based on 35 U.S.C. §102.

Claim 1 now recites, in a relevant portion, "a source side comprising: a first memory for storing a cryptographic key" and "a display side coupled to the source side via a digital link, comprising a second memory," "wherein the second memory is used to store the cryptographic key temporarily on the display side before the cryptographic key is used for encrypting the digital data."

For one, Harrison does not differentiate between a "source side" and a "display side." Further, Harrison does not disclose storing a cryptographic key in a memory on the source side while also requiring that the cryptographic key be temporarily stored in a memory on the display side before the cryptographic key is used for encrypting the digital data. Therefore, Harrison does not disclose one or more elements of Claim 1. Accordingly, Harrison does not anticipate Claim 1, as amended.

Since Claim 6 depends on Claim 1, it incorporates all the terms and limitations of Claim 1, in addition to other

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limitations, which together further patentably distinguish Claim 6 over the cited references. Therefore, Applicants request that the rejection of Claim 6 be withdrawn and the Claim be allowed.

Claim 7 has been similarly amended to recite, in a relevant portion, "selecting an encryption key from a first set of encryption keys stored in a first memory on a source side," "transferring the selected encryption key from the first memory to a second memory on a display side," and "storing the selected encryption key temporarily in the second memory on the display side until it is used by an encryptor to encrypt the digital data." Harrison therefore does not anticipate Claim 7, as amended. Accordingly, Applicants request that the rejection of Claim 7 be withdrawn and the Claim be allowed.

In rejecting Claims 12, 16, 30 and 32, the Examiner contends "Harrison discloses 'A system for encrypting digital data, the system comprising: a first input terminal for receiving the digital data,' 'a second input terminal for receiving a key,' 'an encryptor for receiving and encrypting the digital data using the key,' 'a first output terminal for transmitting the encrypted digital data . . .'," and cites FIG. 1 and Col. 4, line 7 through Col. 5, line 41.

Claim 12 now recites, in a relevant portion, "a source side comprising: . . . a second input terminal for receiving a key" and "a display side coupled to the source side via a digital link, comprising a display side memory for temporarily storing the key," "wherein the selector switch provides the digital data and the key to the encryptor, the key being temporarily stored in the display side memory" In other words, Claim 12

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requires that the key received on the source side is temporarily stored in a memory on the display side for use by the encryptor. Harrison therefore does not anticipate Claim 12, as amended. Therefore, Applicants request that the rejection of Claim 12 be withdrawn and the Claim be allowed.

Since Claims 13, 16-21 and 26-29 depend, directly or indirectly, on Claim 12, they each incorporate all the terms and limitations of Claim 12, in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, Applicants request that the rejection of Claims 13, 16-21 and 26-29 be withdrawn and the Claims be allowed.

Claim 30 now recites, in a relevant portion, "receiving a key from an external key storage medium at a source side of the data encryption system" and "encrypting the digital data using the key, the key being temporarily stored at a display side memory of a display side of the data encryption system" Harrison therefore does not anticipate Claim 30, as amended. Therefore, Applicants request that the rejection of Claim 30 be withdrawn and the Claim be allowed.

Since Claims 31-37 and 41 depend, directly or indirectly, on Claim 30, they each incorporate all the terms and limitations of Claim 30, in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, Applicants request that the rejection of Claims 31-37 and 41 be withdrawn and the Claims be allowed.

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II. Rejection of Claims 2-5, 8-11, 22-25 and 38-40 under 35
U.S.C. § 103(a)

The Examiner has also rejected Claims 2-5, 8-11, 22-25 and 38-40 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Harrison in view of U.S. Patent No. 6,577,734 to Etzel et al. ("Etzel"). Claims 2-5 and 8-11 depend on Claim 1. Claims 22-25 depend on Claim 12. Claims 38-40 depend on Claim 30.

The Examiner has cited Etzel, inter alia, for the proposition that Etzel discloses "a cryptographic system which is implemented to encrypt the digital video data," "the digitized video signal and MPEG-2 encoding provided to the user over the cable-TV systems and direct broadcast satellite video systems" "a cryptographic system, which is implemented to encrypt the multimedia data" and "cryptographic system, which is implemented the 'encryption keys includes keys compatible with the High-bandwidth Digital Content Protection specification." However, Etzel does not cure the deficiencies of Harrison to reject Claims 1, 12 or 30 as discussed below. Therefore, claims 1, 12 and 30 are patentably distinguishable over Harrison in view of Etzel.

By way of example, as Applicants previously submitted in the Supplemental Response of September 19, 2005, Etzel specifically states that the disclosed "facility generates a unique device encryption key *that is never disclosed externally* to another device or entity ("externally unknown")" Etzel, col. 1, lines 54-56 (emphasis added). A facility in accordance with Etzel may only share a "program key [which is] *encrypted using another externally unknown symmetrical*

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encryption key that the facility indirectly shares with the other element and the result is then supplied to the latter element for decryption using *its own version* of the symmetrical key." *Id.*, col. 2, lines 4-8 (emphasis added). Hence, Etzel teaches using a combination of multiple keys, at least some of which are only known to a central server and never disclosed externally.

Specifically, Etzel does not allow for "a cryptographic key" to encrypt the digital data. See Applicant's Amended Claim 1. Instead, Etzel requires multiple keys, including at least "a unique device encryption key" and a "program encryption key." Etzel, col. 1, lines 54-57. Moreover, if the program key is transported to another element, "another externally unknown symmetrical encryption key" is required, wherein each element uses "its own version." *Id.*, col. 2, lines 2-8 (emphasis added). Hence, Etzel does not allow for a single key that may be transmitted and stored at the display side and is usable for encrypting the digital data.

A motivation behind the multi-key method disclosed in Etzel, and specifically the non-disclosure of the device encryption key, appears to be the combating of "video 'pirates'" who may be "able to illicitly produce a service provider's decryption key." *Id.*, col. 1, lines 33-35. The Applicant's invention, by contrast, includes the goal of "the digital video source and the display monitor hav[ing] access to the cryptographic keys to encrypt and decrypt, respectively, the digital video data." Applicant's Spec., page 3, lines 1-3. One purpose behind this goal is the support of a number of existing

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and emerging standards. See *id.*, page 1, line 1 - page 2, line 32.

As a result, neither Etzel nor Harrison disclose "storing a cryptographic key" at "a first memory" at "a source side" of the system and "transmitting . . . the cryptographic key on the digital data medium" to be temporarily stored at "a second memory" at "a display side" of the system, wherein the cryptographic key is autarkically "us[able] for encrypting the digital data," as called for by Applicant's amended Claim 1, neither by themselves nor in combination.

Similarly, neither Etzel nor Harrison disclose "a source side comprising: . . . a[n] . . . input terminal for receiving a key" and "an encryptor for receiving and encrypting the digital data using the key" with "the key being temporarily stored in the display side memory . . . ," as called for by amended Claim 12, neither by themselves nor in combination.

Finally, neither Etzel nor Harrison disclose "receiving a key from an external key storage medium at a source side of the data encryption system" and "encrypting the digital data using the key, the key being temporarily stored at a display side memory of a display side of the data encryption system," as called for by amended Claim 30, neither by themselves nor in combination.

Since Claims 2-5, 8-11, 22-25 and 38-40 depend, directly or indirectly, on Claim 1, 12 or 30, respectively, each Claim incorporates all the terms and limitations of Claim 1, 12 or 30, respectively, in addition to other limitations, which together further patentably distinguish them over the cited references.

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Therefore, Applicants request that the rejection of Claims 2-5, 8-11, 22-25 and 38-40 be withdrawn and the Claims be allowed.

III. New Claim 48


Since the newly added Claim 48 depends on Claim 12, it incorporates all the terms and limitations of Claim 12, in addition to other limitations, which together further patentably distinguish Claim 48 over the cited references. By way of example, Claim 48 recites, "the display side memory is an integral component of the encryptor." In view of the above, Applicants request that Claim 48 be allowed after due consideration.

IV. Concluding Remarks

Accordingly, in view of the above amendment and remarks, it is submitted that the Claims 1-13, 16-46 and 48 are patentably distinct over the cited references and that all the rejections to the Claims have been overcome. Therefore, Applicants request an early issuance of patent with Claims 1-13, 16-46 and 48. If there are any remaining issues that can be addressed over the telephone, the Examiner is cordially invited to call Applicants' attorney at the number listed below.

Respectfully submitted,

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